

Amendment To the Abstract:

Please amend the Abstract as shown below:

~~The microstructure of components, particularly layer system, deteriorates under excessive thermal and/or mechanical stress. Previous test methods are destructive, parts being cut out of the layer system and being microstructurally analyzed. The inventive method allows a deterioration to be determined by means of special, simple non-destructive measurements that are repeated at specific intervals using a mechanical indenter test, for example.~~

Method for recording microstructural changes in a layer system component. A specific material parameter of the component is measured. The layer system may include an alloy substrate and an alloy or porous ceramic layer. The material parameter may be measured a plurality of times. The measured material parameter may include electrical capacitance, specific heat capacity, peltier coefficient or magnetic susceptibility. The material parameter may first be measured on a new component and subsequent measurements may be performed at a time interval after operational use. The recorded material parameter is then used to determine microstructural changes in the substrate or the layer material of the component caused by changes in precipitation, cracks, or depletion of an alloying element.